

# 20 24

PORTUGAL  
RENEWABLE  
ENERGY  
SUMMIT



## GRID ACTION PLAN

EU DSO Entity

Luís Vale Cunha, Member of the Board

1. DSO Entity: Establishment, role and tasks in the EU landscape
2. Driving Grid Modernisation: Spearheading the Grid Action Plan
3. Green Reindustrialisation: Powering EU growth with modern grids 2024-2029

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# The Rise of DSOs in EU Energy Policy: A timeline of increasing relevance

## Internal Market Policies



**First Energy Package**  
(1996)

**Second Energy Package**  
(2003)

**Third Energy Package**  
(2009)

**Clean Energy Package**  
(2019)

**Electricity Market Design Reform**  
(\*2023)

## Climate and Energy Policy



**Green Deal**  
**Fit for 55**  
**REPowerEU**

Renewable Energy Directive

Energy Efficiency (in buildings) Directive

Infrastructure for alternative fuels  
Regulation

Trans-European Network Regulation  
(TEN-E)

F-gases Regulation ...



The  
importance  
of EU policies  
for DSOs is on  
the rise

# DSO Entity in the European Landscape: A mandated technical instrument for DSOs

EU associations representing  
electricity (and partly gas) DSOs



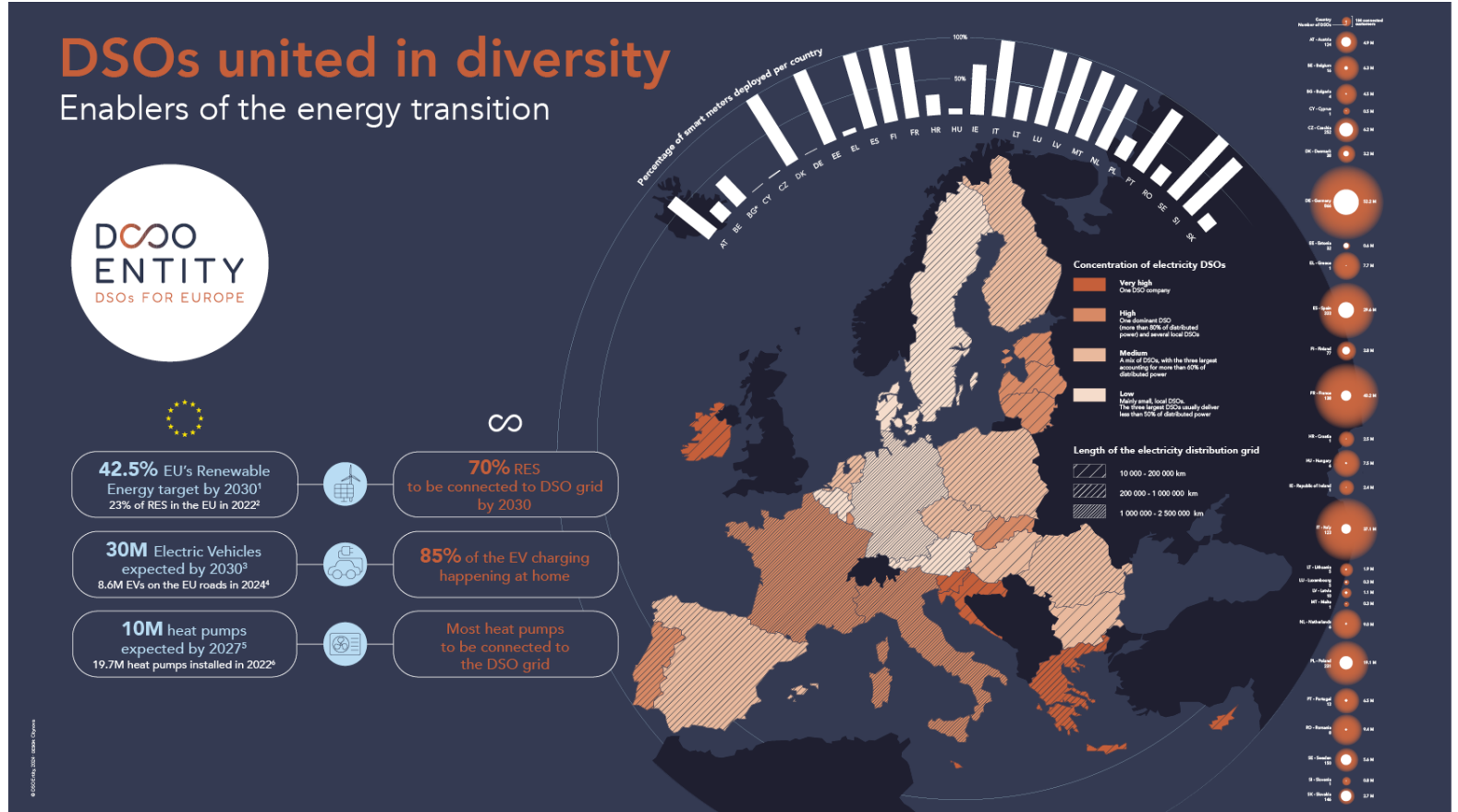
Mandated bodies\* representing  
DSOs / TSOs

DSO  
ENTITY  
DSOs FOR EUROPE

entsoe  
Reliable Sustainable Connected

\* Electricity Market Regulation (2019/943/EU)

# Bridging EU Ambitions and Technical Realities: 2500+ Diverse DSOs Shaping Europe's Energy Future



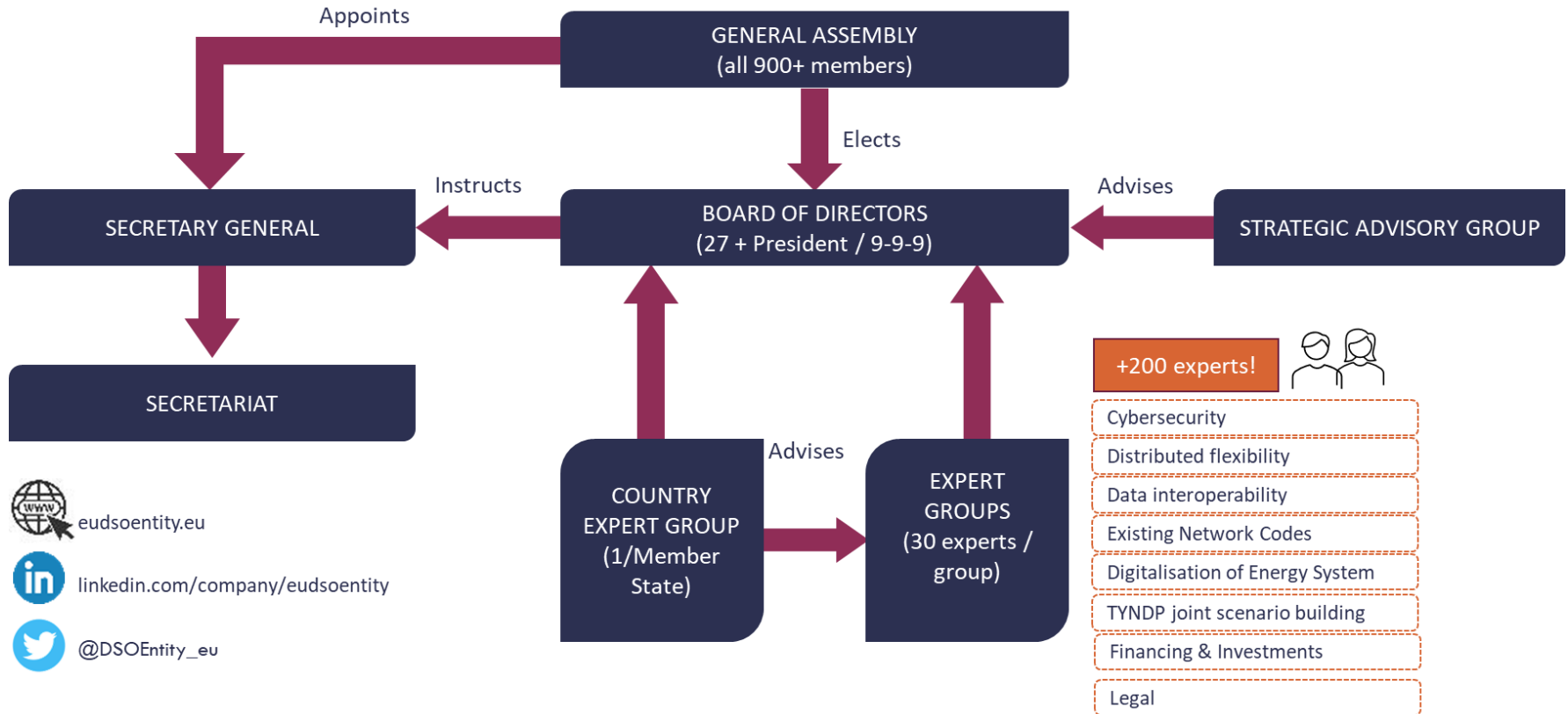
# The Technical Arm of DSOs: Overview of mandate and key tasks

<b>DSO Entity – the (technical) voice of all DSOs in Europe</b>	
<b>Mandate</b>	- Art. 52-61 in the Electricity Market Regulation (2019/943/EU) assign clearly <b>defined tasks and responsibilities</b> to DSO Entity
<b>Core Tasks</b>	<ul style="list-style-type: none"> <li>- Execution of <b>mandated tasks</b> in Electricity Regulation (e.g. Development of Network Codes and Guidelines, TSO-DSO-cooperation (on network planning), identifying best practices on relevant energy topics etc.)</li> <li>- Execution of <b>delegated implementation assignments</b> deriving from secondary legislation or others (e.g. Implementing Act/Regulation on Data Interoperability, Digitalisation of Energy System - Action Plan )</li> </ul>
<b>Work Focus</b>	- <b>Secondary legislation</b> on technical energy-related aspects
<b>Core Contacts</b>	- <b>European Commission, ACER, ENTSO-E</b>
<b>Representation</b>	<ul style="list-style-type: none"> <li>- Open to <b>all DSOs</b> in the European Union</li> <li>- Currently <b>+830 DSOs</b> from all <b>27 Member States</b></li> </ul>



EU policy making has become **more technical & technocratic** through an increase of **Implementing and Delegated Acts**

# Inclusive Governance: Empowering members and leveraging expertise



 [eusoentity.eu](http://eusoentity.eu)

 [linkedin.com/company/eusoentity](https://www.linkedin.com/company/eusoentity)

 [@DSOEntity\\_eu](https://twitter.com/DSOEntity_eu)



# Overview of DSO Entity's core activities: Three main pillars & three extra projects in 2024

## PILLAR 1



### Development of Technical Rules such as Network Codes

Participating in the drafting of Network Codes & Guidelines which are relevant for DSO grids and other technical assignments

## PILLAR 2



### Close DSO-TSO Cooperation with ENTSO-E

Promoting the optimal & coordinated planning and operation of DSO/TSO networks

## PILLAR 3



### Knowledge Sharing (best practices)

Provide a forum of expertise to exchange views on relevant topics relating to the energy transition

## 3 LARGE PROJECTS 2024

Development of DSO Entity's **Technical Vision** of the energy system



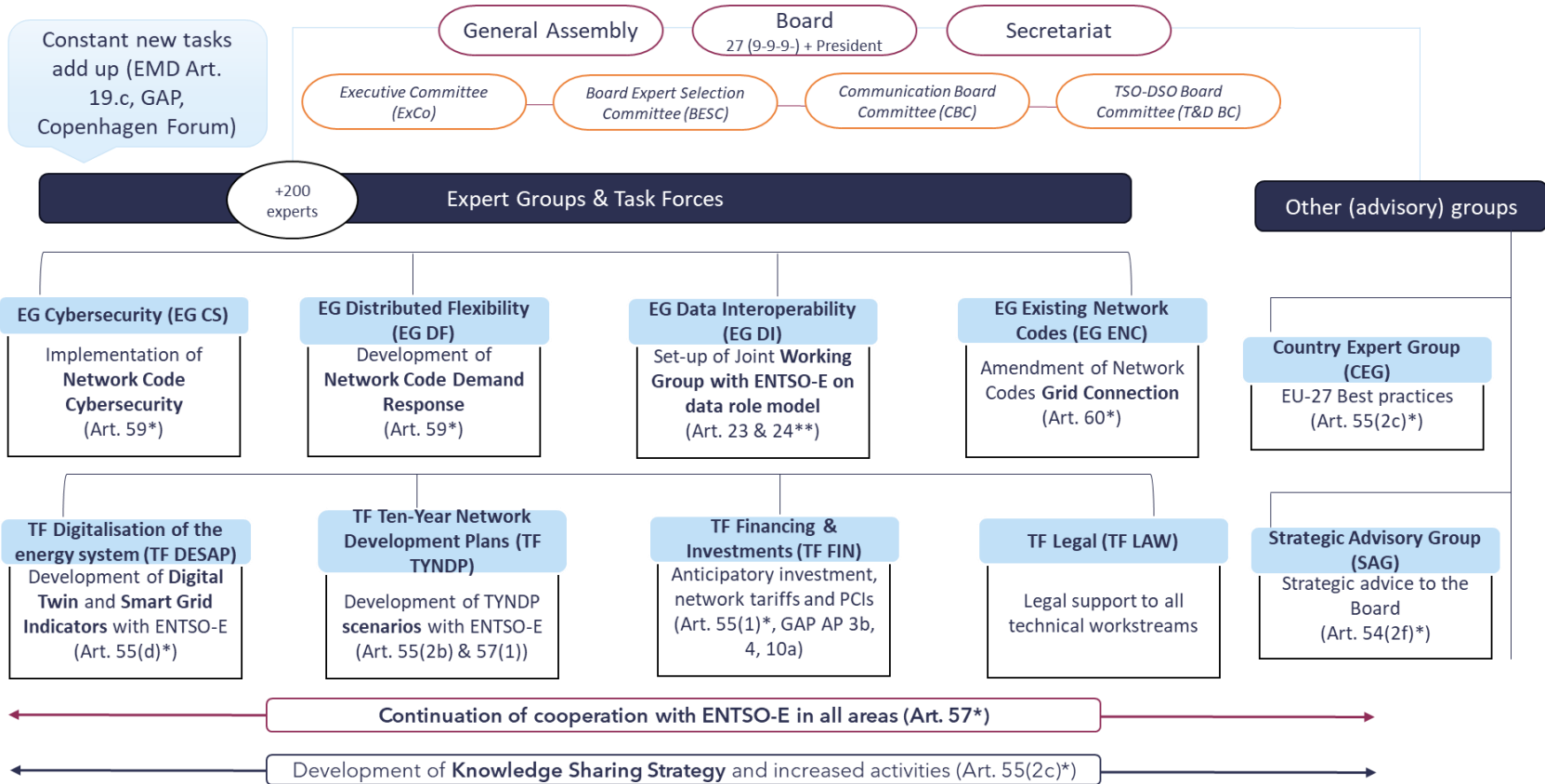
Delivery and monitoring of assigned tasks in **Grid Action Plan**



Integration of gas and hydrogen DSOs into DSO Entity



# Expert Groups: The engine of DSO Entity's innovation and expertise



\* Electricity Market Regulation (2019/943/EU)  
\*\* Electricity Market Directive (2019/944/EU)

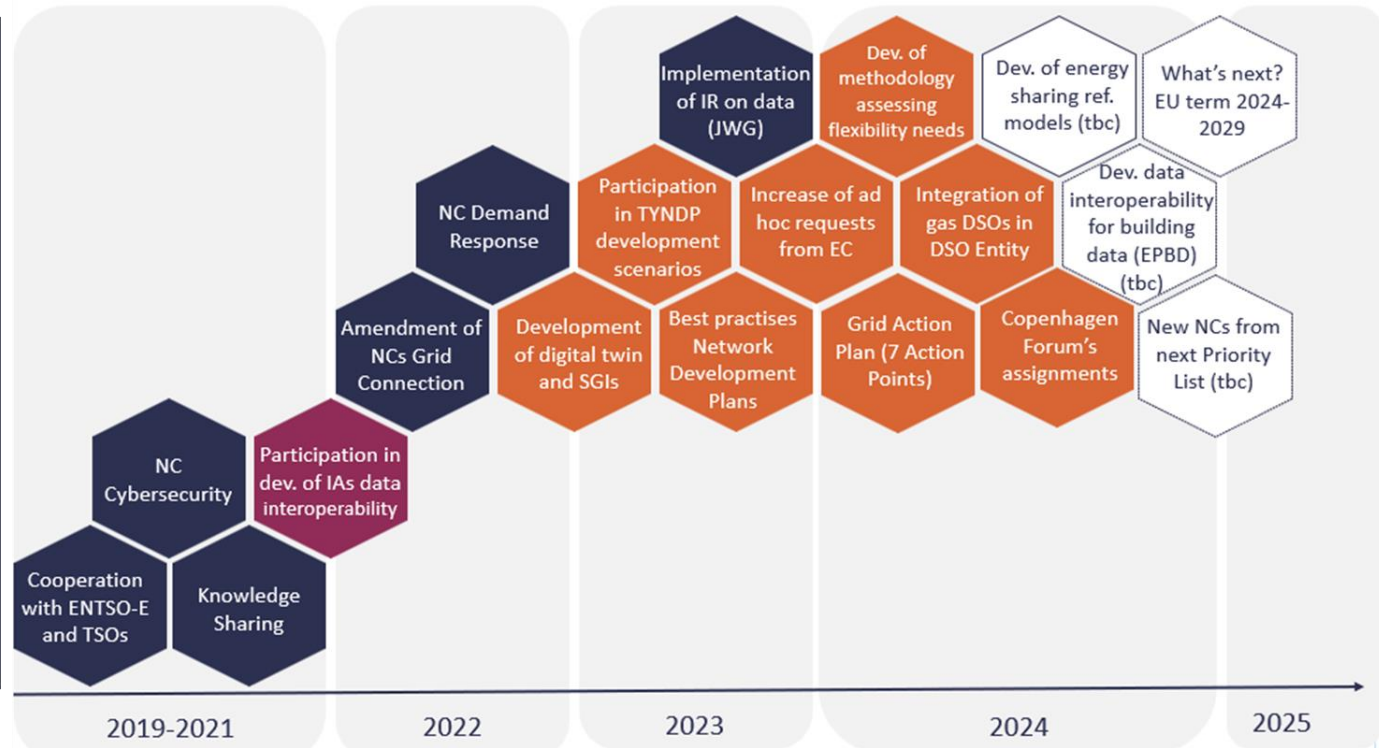
# Evolving Mandate: DSO Entity's expanding role and responsibilities

## Legend:

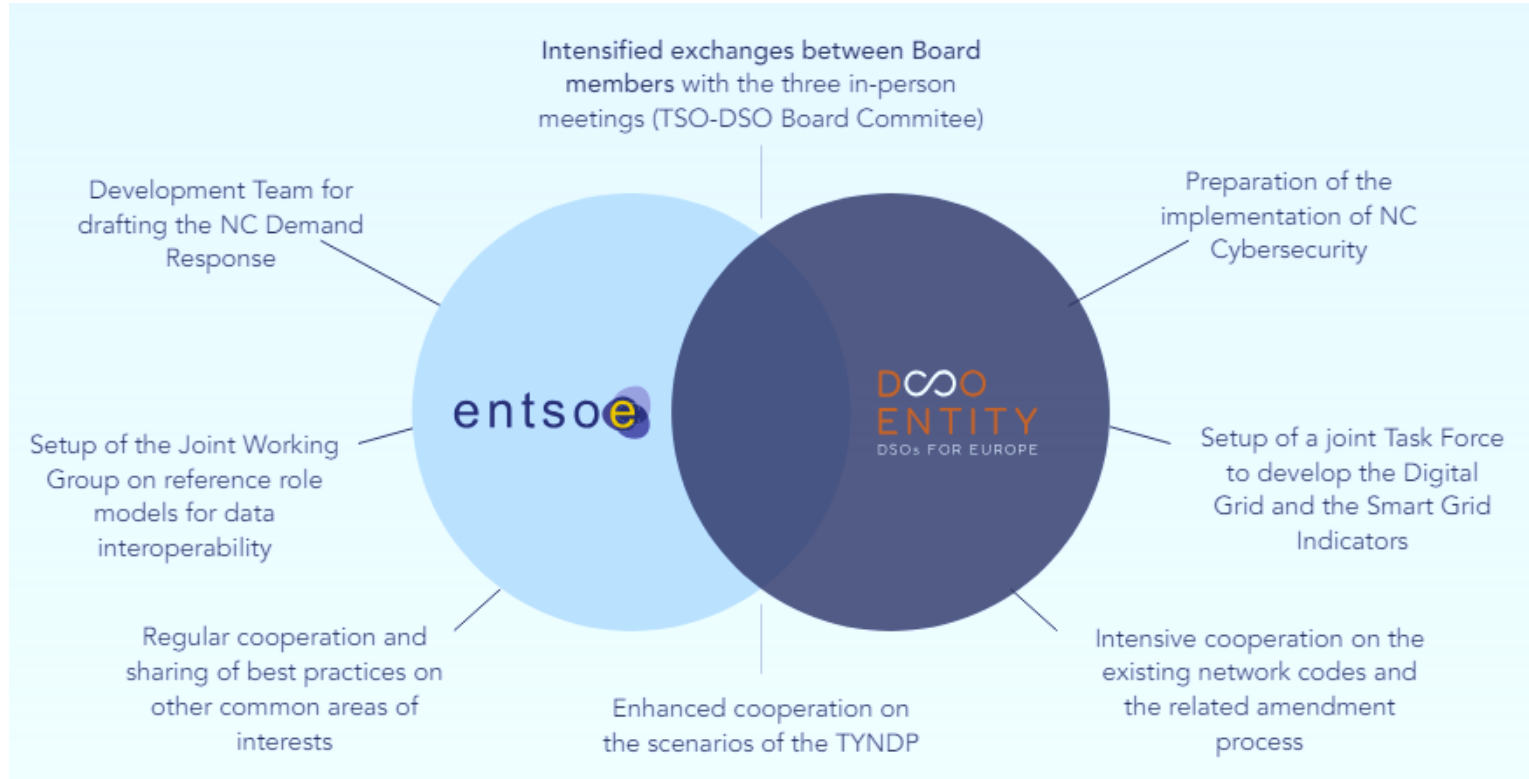
■ As provided by DSO Entity's mandate (\*Electricity Market Regulation (2019/943/EU) /\*\* Electricity Market Directive (2019/944/EU)/Implementing Regulation)

■ As provided by Implementing Regulation under the scope of DSO Entity's mandate

■ As assigned by the European Commission in other (non-) legislative acts under the scope of DSO Entity's mandate



# TSO-DSO Synergy: Collaborative Workstreams with ENTSO-E



# Expanding Partnerships: Engaging diverse energy stakeholders

## Renewable Energy



SolarPower  
Europe

Renewables  
Grid Initiative 



## Transport and E-mobility



## Gases and heat pumps



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# Grid Action Plan launched 28/11/23 by EC: Accelerating EU's energy transition



## Objective

- Grids: From success story to **critical challenge**
- **High investment** needs for DSOs
- Ongoing **support crucial for implementation**



## Contents

- **Non-legislative initiative** by European Commission
- Supports **grid implementation of existing energy laws**
- Addresses **7 challenges** with **14 action points** over **18 months**



## Assessment

- Unprecedented **focus on DSOs** and **decentralised energy**
- **Targeted measures** for DSOs (e.g., permitting, funding)
- **DSO Entity leads 7 of 14 action points**, often with ENTSO-E



**“The EU is bringing grids to the centre of its agenda”**

# Grid Action Plan: Key focus areas and concrete actions

	Grid Action Plan – Tasks assigned to DSO Entity (mostly in cooperation with ENTSO-E)	Action	Lead
Grid Planning and Grid Capacity	<ul style="list-style-type: none"> <li>Support DSO grid planning by mapping DSO development plans; by improving best practices and recommendations*</li> <li>Develop mechanisms for providing increased visibility to manufacturers into their upcoming procurement plans*</li> </ul>	Action 3a Action 13b	TF TYNDP  EG ExNC
	<ul style="list-style-type: none"> <li>Provide harmonized definitions for available grid hosting capacity for system operators and to set a pan-EU overview</li> </ul>	Action 6a	EG DF
	<ul style="list-style-type: none"> <li>Issue recommendations to digitalise and streamline procedures for grid connection requests</li> </ul>	Action 6b	TF DESAP
	<ul style="list-style-type: none"> <li>Promote smart grid uptake, network efficiency and innovative technologies, e.g. technopedia</li> </ul>	Action 7	TF DESAP
Grid Investment and Financing	<ul style="list-style-type: none"> <li>Raise awareness on the available options to increase funding applications for DSOs (PCIs)*</li> </ul>	Action 3b,10a	TF FIN
	<ul style="list-style-type: none"> <li>Support the EC in proposing guidance for conditions to approve anticipatory investments*</li> </ul>	Action 4	TF FIN
Grid Permitting and the Public	<ul style="list-style-type: none"> <li>Facilitation of the Pact for Engagement to reinforce stakeholder engagement and permitting</li> </ul>	Action 12	CEG
Grid supply chains and Standardization	<ul style="list-style-type: none"> <li>Collaborate with technology providers to develop standard technology specifications [TSO-focus]</li> </ul>	Action 13a	All EG/TF
	<ul style="list-style-type: none"> <li>Develop mechanisms for providing increased visibility to manufacturers into their upcoming procurement plans (see also grid planning)</li> </ul>	Action 13b	CEG TF TYNDP
	<ul style="list-style-type: none"> <li>Promotion of technical requirements for generation &amp; demand connection (revision NC RfG/DC)</li> </ul>	Action 14	EG ExNC

The Grid Action Plan follows an institutional approach with:

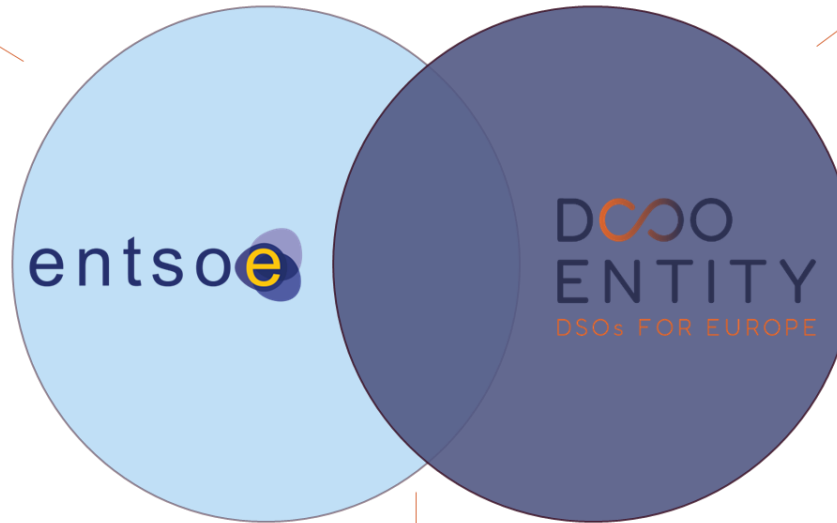




# DSO Entity and ENTSO-E: Partnering on Grid Action Plan

**A4:** DSO Entity, with ACER and ENTSO-E, shall support the EC in **proposing guidance** for conditions to **approve anticipatory investments**.

**A6:** DSO Entity, with ENTSO-E, shall agree on **harmonised definitions for available grid hosting capacity** for system operators and to set a pan-EU overview. Moreover, DSO Entity, with ENTSO-E, shall issue **guidance and recommendations to digitalise and streamline procedures for grid connection requests**.



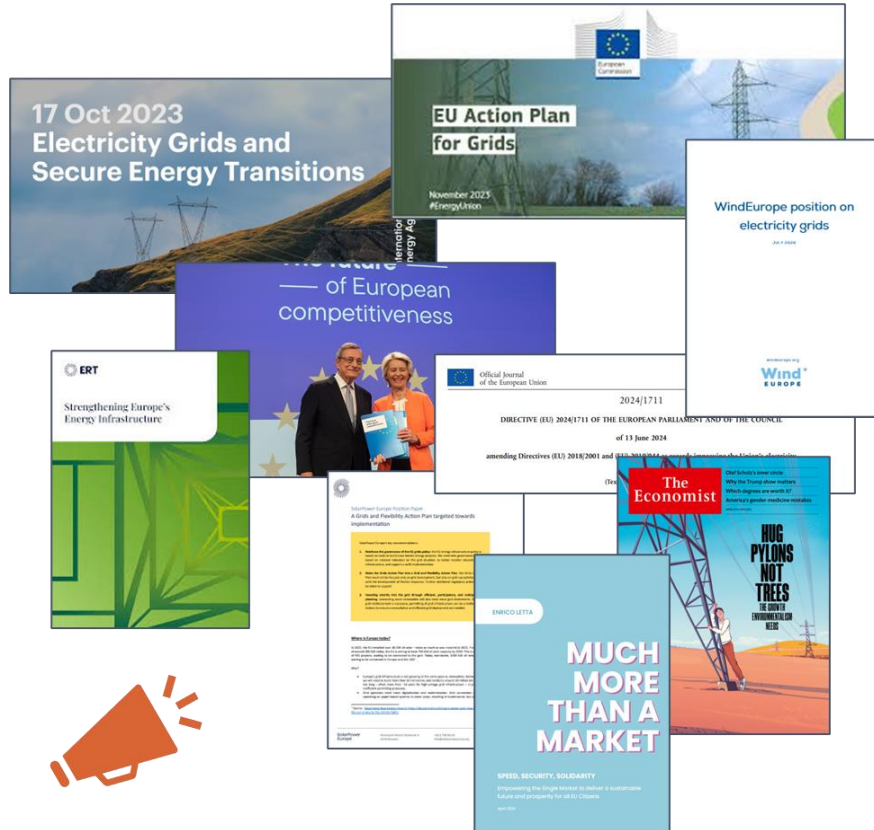
**A12:** DSO Entity with ACER, ENTSO-E and RGI signed the **Pact for Engagement** to reinforce **stakeholder engagement**.

**A13:** DSO Entity, with ENTSO-E, to collaborate with technology providers to develop **standard technology specifications**. DSO Entity, with ENTSO-E, to develop mechanisms for providing increased visibility to manufacturers into their **upcoming procurement plans for equipment and systems** on all voltage levels.

**A7:** DSO Entity, with ENTSO-E, shall promote **smart grid uptake, network efficiency & innovative technologies**, and to update the **Technopedia**.

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# Grids Take Center Stage: A turning point in 2023



*The EU is bringing grids to the center of its agenda.*

European Commission, EU Grid Action Plan  
November 2023

*A fully integrated, interconnected, and synchronised European power system can only be achieved if the EU's electricity grid infrastructure is deployed.*

Council Conclusions  
May 2023

*The recent reform of the EU electricity market design includes many new and reinforced provisions for electricity grids and flexibility, highlighting a commitment to modernize and enhance grid infrastructure to support renewable energy deployment.*

WindEurope position on electricity grids  
September 2024

*If there is one horizontal area in the energy sector whose importance cannot be overstated, it is the EU's energy grid.*

Mario Draghi's Report  
September 2024

# Grids remain on the agenda, but under a new paradigm: From the Green Deal to the Clean Industrial Deal

2019-2024: **The Green Deal** - the sustainability objective – was in the focus



**Affordability**   
(competitive markets)

**Sustainability**   
(renewables integration)


**System Resilience**   
(security of supply)

2024-2029: **A Clean Industrial Deal** - focus is shifting towards competitiveness,  
resilience and security



**Affordability**   
(competitive markets)

**Sustainability**   
(renewables integration)

**System Resilience**   
(security of supply)



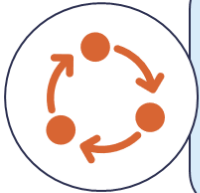
- **Ambitious energy & climate policy continues**
  - 90% emissions reduction by 2040
- Shift from "green" to "**clean**" terminology
- Enhanced focus on **EU industry competitiveness**
  - New Industrial Decarbonisation Accelerator
  - New EU Competitiveness Fund
- Emphasis on **energy security and independence**

**Energy: Reframing the Green Deal**

## New EU term 2024-2029: What's in for grids?



**Grids are placed high on the agenda of the Energy Commissioner** who is assigned to review the existing legal framework for European Grids to **support the upgrade and expansion of the grid, and speed up permitting, and electrification**, as well as to propose a **clean energy investment strategy** with a focus on **clean energy infrastructure including grids**.



Grids are visible not only in the mission letter of the designated Energy Commissioner, **but also by their mentioning within relevant cross-cutting initiatives** such as the development of a **Clean Industrial Deal** and a **Clean Energy Investment Strategy**.



**The distribution level is not explicitly mentioned and recent influential publications**, such as the Draghi report, have shown a **focus on the transmission level and cross-border aspects**.

# Thank You for Your Attention!

Together with the DSO Entity, we are shaping the future of grids through collaboration and innovation.

**ANNUAL EVENT 2024**  
5 December 2024, 9:00 - 13:00 (CET)  
Location: L42 Business Center  
Rue de la Loi 42, Brussels

**DSOs Fit for 55**  
Challenges, practices and lessons learnt on connecting renewables to the grid

**Smart Grid Indicators – The case for observability**  
A Technical Discussion Paper by DSO ENTITY's Task Force Electricity June 2024

**Common TSO-DSO work plan 2024-25 Executive Summary**  
ENTSO-E and EU DSO Entity  
Public Release: 20 June 2024

**First Network Code on Cybersecurity for the electricity sector published today**  
Brussels, 28 May 2024  
Today, the European Union published the first-ever EU Network Code on Cybersecurity for the electricity sector. The publication is an important step to improve the cyber resilience of critical EU energy infrastructure and services.  
The new Network Code on Cybersecurity has been developed in response to the growing digitalisation and interconnectedness of modern power systems. It provides a common standard to ensure the security and reliability of the interconnected system.  
The Network Code will support a high, common level of cybersecurity for cross-border electricity flows in Europe by setting common rules to perform cybersecurity risk assessments, report cyber attacks, threats and vulnerabilities, and escalating cybersecurity risk management. It also includes recommendations for supply chain security.  
The publication of the network code on cybersecurity marks an important milestone for the completion of the internal energy market and the achievement of the European Union's energy objectives, both at the level of transmission and distribution electricity grids. The network code was modelled according to the code under the Electricity Regulation (EU) 2019/943 and in the 2022 TCF Action Plan to digitalise the energy system.  
The drafting of the network code was achieved thanks to the excellent collaboration between the European Network of Transmission System Operators (ENTSO-E) and the European Distribution System Operators Entity (DSO Entity). ENTSO-E and DSO Entity also greatly value the close communication and open collaboration with the European Commission and ACER, who supported a consistent effort towards the delivery of the network code. We applaud the European Commission agency for Cybersecurity for the continuous and active support.  
In the coming months, ENTSO-E and DSO Entity will continue their collaboration and work on the different documents that will guide the implementation of the Network Code.

**EU DSO Entity and ENTSO-E Proposal for a Network Code on Demand Response**  
V 1.0  
8 May 2024

**DSO Entity's Identified good practices on Distribution Network Development Plans**  
Working Paper: A GUIDE BY DSO ENTITY'S TASK FORCE Top-Down Network Development Plans (DNDFP) June 2024

